WHY THERE IS NO FIREWOOD HARVESTING OF WHITEBARK PINE

Q. Can I cut Whitebark Pine for firewood?

A. No. The Boise National Forest and many National Forests do not allow removal of dead or living whitebark pine. In 2011, the U.S. Fish and Wildlife Service (USFW) designated whitebark pine as a Candidate species for protection under the federal Endangered Species Act. Because of the threats to the sensitive whitebark pine ecosystem the plan is to err on the side of caution and prohibit firewood harvest of all whitebark pine – living or dead. This approach meets Forest Plan direction to enhance whitebark pine regeneration. In addition, it provides for genetic and ecological studies that may need dead trees, prohibits disruption to watershed and soil resources, and preserves the existing forest structure for wildlife species that inhabit high elevation ecosystems.

Q. Why are they rare?

A. Whitebark pine ecosystems are declining, including live and dead components, due to blister rust infections and mortality, mountain pine beetle mortality, extensive fire events and lack of whitebark pine regeneration.

Q. What value are Whitebark pines?

A. Whitebark pine is valued for watershed protection. It's location at the timberline or at high elevations is important because the up-swept tree branches of the crown provide shade to delay snowmelt and retain snowdrifts into early to mid-summer in the arid mountain ranges of the northern Rocky Mountains. It grows on fragile soils which lack fine material to aid in soil development. Coarse woody debris in the form of dead and down whitebark pine is essential to soil development within these ecosystems, where soil development occurs extremely slowly.

Whitebark pine, like all pines, depends on mycorrhizal fungi to survive and thrive in its natural environment. This fungus binds to tree roots and provides a pipeline for movement of nutrients to the tree. Disruption of the soil by trampling or driving over the soil with vehicles or heavy equipment would be damaging to the trees and future regeneration.

Q. Why can't I cut the downed logs?

A. Recent research shows that whitebark pine logs improve the potential for whitebark pine regeneration by providing safe sites for cached pine seed, thus enhancing the regeneration of the species. Please go to: http://www.fs.usda.gov/detail/r1/plants-animals/?cid=stelprdb5341458 for more information.

Q. Can you tell me more about where it grows and how it propagates?

A. Whitebark pine (*Pinus albicaulis*) is a slow growing, long-lived, stone pine (pine tree with edible seeds) of high-elevation forests and timberlines of the northwestern United States and southwestern Canada. It is one of five stone pines worldwide and the only stone pine in North America. It occupies harsh, cold sites characterized by rocky, poorly developed soils and snowy, wind-swept exposures. Their seeds are not wind dispersed; they develop in indehiscent cones that are harvested by Clark's nutcracker. Nutcrackers pry open the cone scales with their bill and slip seeds into a pouch under their tongue for transport. They cache or consume seeds and those not retrieved from caches may germinate and become established as seedlings. Clark's nutcracker have evolved with whitbark pines over centuries and are critical components in pine regeneration dynamics, ultimately responsible for the geographic range, spacing, successional status, and genetics of the species.

Q. What are some of the greatest threats to the species?

A. The threats whitebark pine faces, including climate change, mountain pine beetle and blister rust are of such a high magnitude that it is declining throughout its range. Some areas have experienced more than 80% mortality of whitebark pines.

This species is severely threatened by introduced disease and fire suppression—which are complicated by recent upsurges in mountain pine beetle. White pine blister rust is a fungal disease caused by a pathogen was inadvertently introduced to Vancouver, British Columbia in 1910. In the past century, it has spread throughout the whitebark pine range. The highest infection levels in whitebark pine, from 50-100%, occur in the northwestern U.S. and southwestern Canada. Whitebark pine mortality from the combination of blister rust and mountain pine beetle exceeds 50% in north-central Idaho. Between 1909 and 1940 and again from the 1970s to the 1980s, widespread mountain pine beetle outbreaks killed whitebark pine throughout the Rocky Mountains, producing “ghost forests”. Mountain pine beetle infestations are again at high levels within whitebark pine communities in the northern Rocky Mountains.